

TAB

C^{nth}?: On the Strategic Potential of ESP

By Dr. Roger A. Beaumont

INTEREST IN the military potential of ESP—extrasensory perception—has grown in recent years. Some of it stems from the search for reliable and jamming-free modes of communication. A popular wave of interest in ESP stemmed from a boom in the occult and supernatural phenomena in the late 1960s and early 1970s, a time when ESP research in Eastern Europe and the Soviet Union also attracted popular attention. Claims of success in using ESP in military operations, however, appeared after the First World War¹.

In spite of all such assertions, a basic question remains unanswered: does ESP actually work? While many have thought so—and think so—some scientists in the West have feared that the mounting fascination with ESP, in league with the resurgence in the occult and mysticism, threatens science itself. Moreover, such nagging doubt about psychic phenomena is

not evident in Eastern Europe and the Soviet Union. The Russians have long recognized that if ESP were an actual effect and could be harnessed, it would have great strategic potential.

Are such systems really possible? Many have thought so for some time². In this respect, it may be useful to look closely at the differences in approach in ESP research in the West, on the one hand, and in the Soviet block countries on the other. In the latter, parapsychology is not considered to be a separate research discipline. Instead, articles on "biocommunications" (telepathy) appear in traditional scientific journals, salted in among what Western scientists view as orthodox research. The attention of many in the West was aroused in the 1970s, as Soviet authorities brought a heavy hand down on news coverage of ESP research in Russia³.

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Western Research

In the West, psychic research has long been tainted by sensationalism and some charlatanism. Since the late 19th century, many hungering for the mystical have

sought links with the supernatural through such means as Ouija boards and séances. The dramatic and the absurd overtones of the popular culture aspect of ESP has led even the more conservative elements of the popular press to treat ESP as a novelty. Also confusing is the fact that the various types of apparent ESP—telekinesis (the projection of force), telepathy (mental transmission), clairvoyance (the sensing of remote images) and precognition (foreknowledge)—have been lumped together as related phenomena. Major centers of ESP research in the West, at Utrecht, London and Duke University, have come under suspicion from many scientists. As a result, researchers, like J. B. Rhine, recently deceased, have labored to prove an effect which the Soviets accept and attempt to explain—and control.

While the enfolding of "biocommunications" within their centralized research system may reflect Soviet concern that ESP drifts too close to religion, their closing of public access to ESP research might be a parallel to what happened in the United States and

Britain during World War II after work on an atomic bomb began⁴. When it was still visible, Russian research seemed to be trying to reconcile individual ESP experience with transmission and reception of low-peer low-frequency electromagnetic waves similar to the kind used to transmit radio, television and radar signals⁵. Much of the work on "biocommunications" dealt with the electrical dynamics of organisms, even back in the 1950s, when, in the United States, the idea that animals and plants and individual cells could be influenced by electromagnetic radiation other than heat was rejected in biological research.

Soviet Research

Since the 1930s, biologists and parapsychologists in the Soviet Union have traced out in ever greater detail a telepathic transmitter-receiver ESP model, based on the concept that people with strong abilities as either transmitters or receivers can communicate by sending basic symbols or sensations (but not detailed or precise verbal thoughts or images) at great distance, thus, constituting a "cy-

bernetic system with all its properties" ⁶—based on very-long-wave transmission. Nevertheless, the *Great Soviet Encyclopedia* (GSE) of 1974 states flatly in the article on "Parapsychology" that while ESP is a phenomenon, it is not related to a variant of long-wave electromagnetic transmission. Since the GSE is known to be a vehicle for official policy and is rather Orwellian in nature, the refutation, which contrasts with much extant in Soviet ESP research, is interesting.

While transmission of data over great distances by ESP was examined in the West from the 1920s on, it was rejected at first, since it was in violation of scientific laws which were believed to govern radio transmission and which decreed that there was a falling-off of power relative to the square of the distance between transmitter and receiver. Later, when unexpected long-range transmission of weak signals due to atmospheric effects was discovered, a theory of analogous enhancement and relay through psi-sensitive individuals of ESP "signals" came to the fore,⁷ while other research pointed to the effects of electromagnetic radiation on the body⁸.

Research into the biological effects of electromagnetic 'waves is, of course, not an exclusive preserve of Soviet science. It has been known for almost a century, for example, that magnetic fields induce a sensation of light in the human eye, even in darkness⁹. In the late 1960s, a Russian-born American physicist noted magnetic resonance effects in matter containing particles with gyromagnetic properties, observing that "absorption of electromagnetic energy can cause transitions from lower to higher energy levels with resulting absorption of radiation and re-orientation of the dipoles."¹⁰ Most recently, a British investigator reported a relationship between depth of hypnotic trance and the electrical resistance of the skin.¹¹

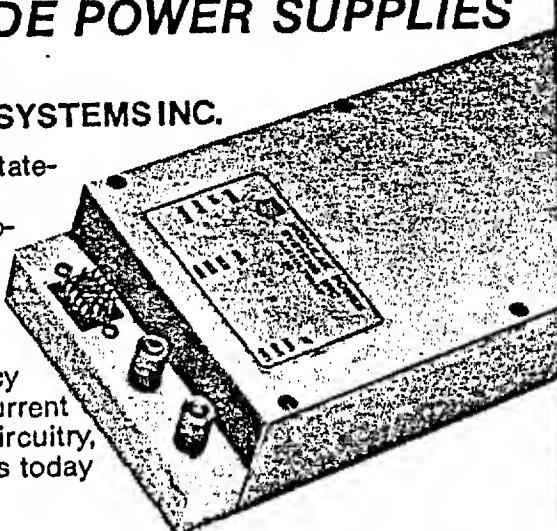
While such evidence of overlap between parapsychology and biology, physics and chemistry falls short of the certainty needed for firm scientific conclusion, the uncertainty poses a problem for defense policy makers. It is especially frustrating, considering the history of ESP which is strewn with hoaxes and wishful thinking that even some scientifically-trained parapsychologists have drifted into misrepresentation and fudging, as desperate searches for conclusive results have led to a shaving of no-sensitivity. Discovery of such

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"Perhaps ESP is a not-yet-understood sensitivity to subtle cues, or the brain function, as a computer processing information subconsciously. Perhaps those who are most sensitive "print out" slightly before or in parallel with distant events, thus appearing to be clairvoyant, but having actually calculated probabilities unconsciously from data gathered along the way—also unconsciously."

hoaxes further discredits a field of investigation under suspicion. As John Beloff, a parapsychologist, has noted, ESP research has "... suffered from its fatal attraction for persons of unbalanced mind who seek in it their personal salvation. . . ."¹²

Nevertheless, what is to be made out of the evidence that suggests the possibility that there may be something more solid lying behind it?¹³ That question makes government funding of ESP-related research, at the worst, a ticking bomb and, at best, a quandary. Sponsoring such seemingly wild-eyed studies could well explode back in the face of sponsoring agencies, policymakers or researchers—but failure to follow leads might yield great advantages to those less skeptical.

Perhaps ESP is a not-yet-understood sensitivity to subtle cues, or the brain function, as computer processing information subconsciously. Perhaps those who are most sensitive "print out" slightly before or in parallel with distant events, thus appearing to be clairvoyant, but having actually calculated probabilities unconsciously from data gathered along the way—also unconsciously. Are such random coincidences noticed only under stress, as psychiatrist Carl Jung suggested in his theory of "synchronicity"? Or is there actually a lining up of electropotential forces in the brain at certain times, creating a low-power long-wave transmitter-receiver system of the kind suggested by Kogan?

Defense-related Research

American defense analysts and policy makers seem to have been hedging their bets in this area for some time. Reports of U.S. defense-related ESP research have appeared fairly regularly in the public press over the last quarter of a century. In the 1950s, for example, news releases and popular features described the involvement of Westinghouse Appr...
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the Rand Corporation and the Institute for Defense Analyses cropped up occasionally. In the early 1960s, there were reports of telepathy between the submarine USS NAUTILUS and a shore-based command post—which was denied forthwith by the Navy.¹⁴ In 1973, stories appeared describing CIA-sponsored probing of Soviet and Chinese secret installations by individuals with high *psi* ability.¹⁵ By the mid-1970s, Stanford Research Institute appeared to be carrying the ball.¹⁶

From time to time, some indications of interest on the part of NASA emerged to public view. Following a call for an experiment in the course of the moonlanding programs in the late 1960s,¹⁷ an astronaut, Captain Edgar Mitchell, conducted an experiment using star-cross-wave-square-circle *psi* cards developed at Duke University. In six sessions, he "transmitted" 25 card images at preset times, while "recipients" recorded their impressions. While the results exceeded statistical probability, they were not overwhelming.¹⁸ NASA was quick to disclaim official sponsorship.

Other cases of NASA involvement included a communication project funded through Stanford Research Institute, which generated hostile reaction in some scientific circles, and a "previewing" of Jupiter by a well-known psychic researcher.¹⁹

Evidence of interest and research, however, does not necessarily mean serious acceptance or commitment to programs. James Dougherty pointed out how nations involved in disarmament talks may interject "jokers" or "riders" into otherwise serious and rational proposals to make sure that their opponents will not accept them. Those thus maneuvered into the role of rejectors may then seem in the eyes of technically unaware publics to be the foes of peace.²⁰ A corollary to this is the strategy of mounting shadow programs to and resources—into a dead-end, the essence of Soviet efforts in the

field of "disinformation." If Soviet research in this area proved to be a spoof, the diversion of money and people to ESP could lead to the overlooking of other developments, as well as serving as a waste of effort.

Such cautions do not erase the tantalizing advantages to be gained in harnessing ESP. Given that such phenomena are based on an element of reality, the strategic use of ESP raises a further series of questions. Are the alignments of people or conditions only random or occasional? Is *psi* ability a by-product of surrounding electromagnetic radiations, or of solar radiation or induced by terrestrial magnetism? Is it enhanceable through hypnosis or drugs? Is there means for testing for *psi* ability? Or for developing it? Can it be jammed? Is the effect simply explainable in terms of a variation of radio-communications theory? Can "information bits," or code messages really be transmitted by sending combinations of basic sensory images? Is foreknowledge and remote-sensing possible? Is it group enhanceable?

ESP and C³

In a parallel vein, the mounting interest in C³—command, control, communication—reflects concern about the complexities of war in what National Security Advisor Breszinski called the "nucleotronic age." The situation is made more critical not only by a rising curve of innovation but also by anxiety about Russian developments in this area. Contradictions in their published material do not produce much agreement among Western analysts about where the Soviets are going, but their lines of thought and unorthodox military problem-solving techniques are unique and sometimes strange.²¹

And so it is not clear at this point if both sides are really just playing with each other, or if there is something really developing in the realm of spoofing, deception and camouflage are normal strategies in the conduct of war—and peace. If

ESP does work as a kind of long-wave radio, it could allow reliable, unjamming, unmonitorable communication with remote strategic weapons, especially the nuclear submarine force. Is there, then, some overlap between ELF—the extremely low-frequency radio system proposed by the Navy over the last 10 years under the titles *Sanguine* and *Seafarer*—and ESP?

The congruence of the Soviet model of ESP and the characteristics of ELF (Extremely Low Frequency) communication occur at several qualitative levels, from the simple aspect of hypothetical-theoretical overlap of transmission and reception, to the need for an unjamming and EMP-proof C³ medium in post-nuclear exchange environment modes, from "broken-back war" fighting to conflict termination. One main hypothetical parallel is the problem of slow data rate, *a la* the age of signal flags and semaphores, and the early era of telegraphy and radio, a problem overcome with codebooks, and imagination. Unhappily, an effective ESP system would, depending on the nature of the phenomena, offer potential to the executor of a surprise attack, from the psychic influencing of targets, through pre-cognition and remote sensing, to message transmission below the detection and countermeasure threshold of a potential victim.²² Thus the anxiety born of the magnitudes of increase in threat and consequence of error tends to override rationalist skepticism.

Threat Perception

Perception and interpretation of threat, after all, has been a growing problem in the age of machine warfare, a by-product of the rising speed and destructiveness of weapons. Since the 1950s and the coming of H-Bomb-tipped ICBMs, the nuclear super-powers have wired together elaborate networks of radar screens, electronic computers, radios, telephones and, more recently, satellites, fiber optics, fluidic computers and lasers. Articles in the Western popular press on the strategic potential of ESP began to appear in the late 1950s, as the first generation of inter-continental ballistic missiles cut nuclear surprise attack warning time from hours to minutes. Since then, such concern born of increasingly destructive nuclear power has been a driving force in shaping such "command and control" systems to function rapidly, and at ~~Approved For Release~~ efficiency, systems which are designed as much to prevent war as to

fight. The anxiety has also been reinforced by the fact that the two nuclear superpowers are the nations which suffered the greatest strategic surprises of World War II, Operation BARBAROSSA, the Nazi assault on Russia, and Pearl Harbor, both in 1941, within six months of each other.

A principal problem in the realm of ESP stems from the dynamics of political power in an age in which "far-out" concepts have regularly become reality. Those who seek and hold political power often lack technical knowledge about the complex systems on which defense and foreign policy rely. Many modern leaders have come to be as dependent on their scientific advisors as ancient kings were on their shamans and soothsayers. The controversial influence of Dr. Lindemann (later Lord Cherwell) on Winston Churchill in the Second World War is still viewed as crucial, since Lindemann's advice led to a major redirection of British bombing toward attacks on German civilians.

In the Nuclear Age, national leaders have often had science advisors act as translators of the arcane, even though the performance of such modern shamans has been uneven. Albert Speer, for example, overlooked the potential of nuclear research, and the influence of Lord Cherwell on Winston Churchill has long been under scrutiny by historians. In any case, science has yielded much of use in modern war, and, recently, as World War II secret files have been opened, the electronic warfare and decoding battles of that period, truly resemble, as Churchill said, a duel of magicians.

When looking at the current plight of policy makers in respect to ESP, then, it is sobering to recall that the vast atomic bomb project of World War II, undertaken in fear of parallel Nazi efforts, was based on an unproven hypothesis in a highly theoretical branch of science. Nevertheless, two days before Pearl Harbor, President Roosevelt committed vast and scarce resources to support the work of scientists who had no firm data in hand, to seek the exotic goal of loosening the electrical bonds of matter. As a result, what was literally science fiction until 1944 became brutal truth in 1945.

Effects of Programs

The data at hand hardly suggest that ~~Approved For Release~~ efficiency, systems which are designed as much to prevent war as to

face hazardous paradoxes. If too much were spent, and produced a dead-end, the political result could be deadly. But if the potential were ignored, and an adversary succeeded in harnessing ESP, the result would be worse than embarrassment. If ESP can, indeed, be measured and controlled, whichever player in the game of international power mastered it might succeed without tipping their hand; it would be hard to keep sealed off. If the effect proved to be a variant in the phenomenon of extra-long wave communication, a whole sub-world of communications research would be opened up, not to mention the impact on geography, meteorology and psychometry.

The tendency for those who dwell in corridors of power to over-read threats is proverbial. In view of that, even suspicion that a foe was using ESP could generate turbulence in a system in times of stress or crisis. The uncertainty regarding the designs and motives behind Soviet interest in ESP also raises other questions. Is that interest merely a spoof, a form of "disinformation," or are they really into pay-dirt and trying to cover up? Did they move their ESP research into their first-line scientific research establishment to conceal developments—or to heighten Western anxiety and uncertainty? Do they fear that the West may be active in this area—or even ahead?

Perhaps, in the end, all the interest and effort in this area will prove merely superstitious and wasteful. Or perhaps many have already glimpsed bits and fragments of an effect—or effects—which will someday be measured scientifically. For those looking out over this strange and blurred landscape, and trying to fit it into a context of policy, operations and technology, it is a very tough call, indeed.

Footnotes

²²The Czechs, for instance, claimed the use of clairvoyance against the Hungarians in 1918 and in guerrilla warfare in World War II; Sheila Ostrander and Lynn Schroeder, *Psychic Discoveries Behind the Iron Curtain*, Englewood Cliffs, Prentice Hall, 1970, pp. 312-313; Peter Maddock, "Electromagnetic Induction of Psi States: The Way Forward in Parapsychology," in *Mysteries*, Colin Wilson, New York, G. P. Putnam's Sons, 1978, p. 632.

²³In the 1920s, the British government reportedly funded development of a device to measure psychic emanations. Ian Stevenson, "The Uncomfortable Facts About Extra-Sensory Perception," *Harper's*, July 1959, pp. 20-25; The military theorist, J. E. C. Fuller, a student of the occult, suggested strong links between psychic power and generalship; Anthony John Trythall, "Boney" Fuller: Soldier, Strategist and Writer, 1878-1966.

New Brunswick, Rutgers-University Press, 1977.

⁸See Henry Gris and William Dick, *The New Soviet Psychic Discoveries*, Englewood Cliffs, Prentice Hall, 1978, pp. 286-287; R. A. McConnell, "Parapsychology in the USSR," *Journal of Parapsychology* (39:2), June 1976, pp. 129-134; Milan Ryzl, *Parapsychology: A Scientific Approach*; J. G. Pratt, "Soviet Research in Parapsychology" in *Handbook of Parapsychology*, Benjamin Woolman, ed., New York, Van Nostrand Reinhold, 1977; Alfred Douglas, *Extra-Sensory Perception: A Century of Psychic Research*, London, Victor Gollancz, p. 345. In 1974, it was announced that E. M. Naurov, a principal Soviet ESP investigator, had been jailed for two years on charges of having personally profited from his work and contacting foreigners, and, in 1977, Russian security police detained an American journalist for questioning who had tried to interview Soviet ESP researchers. Reports of Soviet VIPs seeking health treatment from a well-known medium have appeared in the West, e.g., see n.a., "Über Ihnen ein Leuchten," *Der Spiegel* (35:17), April 20, 1981, pp. 126-139.

⁹See Leslie Groves, *Now It Can Be Told: The Story of the Manhattan Project*, New York, Harper and Brothers, 1962, p. 146ff.

¹⁰See M. Ryzl, "Model of Parapsychological Communication," *Sdelovica Technika* (8), 1964, pp. 299-302, AD-466927, and I. M. Kogan, "The Information Theory Aspect of Telepathy," transl. F. J. Krieger, Rand Paper p. 41-45, 1969. For whatever reason, since Kogan's article appeared, listing of ESP-related research in US unclassified technical report indices has ceased.

¹¹L. Vasiliev, *Studies in Mental Telepathy*, Moscow, Gospolitizdat, 1966. Joint Public Research Service Document No. 10702, p. 175.

¹²See Adrian Dobbs, "The Feasibility of a Physical Theory of ESP" in J. R. Smythies, *Science and ESP*, London, Routledge and Kegan Paul, 1971, pp. 230-254.

¹³A. S. Presman, "The Role of Electromagnetic Fields in the Processes of Vital Activity," *Biophysics*, 1964, p. 134, also see n.a., "Biofields: The Aura of Magic," *Washington Post*, July 20, 1978, Sec. K, p. 10.

¹⁴E.g., see Horace Barlow, Henry I. Kohn and E. Geoffrey Walsh, "Visual Sensations Aroused by Magnetic Fields," *American Journal of Physiology* (148:2), Feb., 1947, pp. 372-375; Walter Sullivan, "Finger Tip Regrowth Starts a Study of Regenerating Nerves and Limbs," *New York Times*, Dec. 30, 1979, Sec. 1, pp. 1 & 18.

¹⁵Alexander Kolin, "Magnetic Fields in Biology," *Physics Today*, November, 1968, pp. 39-50. In the early 1970s, the use of very low level currents to aid in the healing of broken bones evolved from research on the electrical aspects of limb regrowth in lower order animals.

¹⁶C. Maxwell Cade and Ann P. Woodley-Hart, "The Measurement of Hypnosis and Auto-hypnosis by Determination of Electrical Skin Resistance," *Journal of the Society for Psychic Research* (76:748), June 1971, p. 99.

¹⁷For a brief critique and description, see Elizabeth Hall, *Possible Impossibilities*, Boston, Houghton-Mifflin, 1977, p. 161.

¹⁸See Stephan A. Schwartz, "Deep Quest," *Omni*, March 1979, p. 94ff.

¹⁹Gerald Messarie, "Le Secret du Nautilus," *Science et Vie*, No. 509, 1960, pp. 30-35, and n.a., "L'Armée Américaine étudie le 6 sense," *Science et Vie*, No. 508, 1960, p. 32.

²⁰*New York Times Index*, 1973; and Bris and Dick, *New Soviet Psychic Discoveries*, Englewood Cliffs, Prentice Hall, 1978, p. 293. For a more recent perspective, see Ingo Swann, Banquet Address, "Proceedings of the 17th Annual U.S. Army Operations Research Symposium," Ft. Lee, VA, 1978, Document #AD B 0362704, pp. 9-27.

²¹For evidence of a trend in the late 1970s, see

Ingo Swann, "The Threat of Possible Psychic Techniques in Future Conflicts. *Proceedings of the 17th Annual U.S. Army Operations Research Symposium*, 6-9 November 1978, Fort Lee, VA (DDC#AD B 036704); also see Dennis M. Ross, "Hypnosis as a Tool of Military Intelligence," *Military Intelligence* (4:3), July-September 1978, pp. 34-37; and John B. Alexander, "The New Mental Battlefield: 'Beam Me UP, Spock,'" *Military Review* (LY:12), December 1980, pp. 47-54.

²²M. Ruderfer, "Note on the Effect of Distance in ESP," *Journal of the American Society for Psychical Research* (63:2), April, 1969, p. 201.

²³N.a., "Space Experiment in ESP is Described," *New York Times*, February 23, 1971, p. 40.

²⁴See Harold E. Puthoff and Russell Targ, "A

Perceptual Channel for Information Transfer Over Kilometer Distances: Historical Perspectives and Recent Research" in *Mind at Large: IEEE Symposia on the Nature of ESP*, ed. Charles T. Tant, Puthoff and Targ (New York: Praeger, 1979), pp. 13-76; n.a., "Techniques to Enhance Man/Machine Communication," Stanford Research Institute, July 1974, Final Report on NASA Project (NAS 7-100).

²⁵James E. Dougherty, *How to Think About Arms Control and Disarmament*, New York, Crane and Russak, 1973, p. 52.

²⁶E.g., V. V. Druzhinin and D. S. Kontorov, *Concept, Algorithm, Decision*, Washington, DC: U.S. Air Force, 1974.

²⁷See Clinton Roche, "ELF and the SSN: Data Rate at Depth and Speed Today," *SIGNAL* (35:8), April 1981, pp. 29-32

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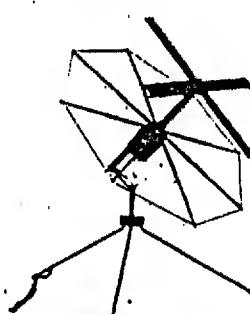
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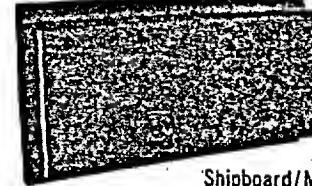
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PSYCHIC WARFARE

The Pentagon is spending millions on parapsychology in a crash program to end Russia's psycho-superiority.

BY RON MCRAE AND SUE MERROW

Picture this sign propped in the window of a modest storefront: "Madame Zodiac, Psychic. Palms Read. Horoscopes Interpreted. Russian Submarines Tracked."

Laughable? Only if you're the kind of eccentric who thinks it's amusing when Uncle Sam throws your tax dollars around on weird sci-fi projects. The fact is that the United States Navy pays "Madame Zodiac" and 33 other so-called psychics \$400 a month each to plot the movements of Soviet submarines. That's \$163,200 a year—peanuts by Pentagon standards, but only a small part of the military and intelligence community's research into parapsychology, or extrasensory perception.

The Navy stoutly denies that it employs sub-chasing swamis, but *The Investigator* has uncovered a long record of the admirals' fascination with the possibility that psychics might somehow be able to read the minds—or the secret instructions—of Soviet submarine commanders as they zigzag through the world's oceans.

Dr. J.S. Lawson Jr., technical director of the Naval Electronic System Command, told *The Investigator*, "I've thought for 20 years that ESP is the way to fight submarines." As early as 1952, in fact, a top secret Navy document suggested that psychics be used to pinpoint hidden submarine pens.

In 1977, the Navy shelled out \$5,111 to a self-styled psychic named Charles Whitehouse of Virginia Beach, Va., for a device he called a "multi-

spectral image analyzer." Whitehouse assured the gullible admirals they could locate a particular submarine by inserting a photograph of it in his machine. And only last year, the Navy tested some professed mind-readers, including New York seer Shawn Robbins, to see if they could chart Soviet Navy maneuvers.

So far, results have been as elusive as the Soviet submarines. But the ever-hopeful Pentagon keeps trying. Psychics and so-called "psychotronic" devices, which supposedly measure or amplify mental powers, are being tested for their ability to break codes, locate hidden missiles and penetrate guarded military installations.

Advocates of these spooky projects, using the old "they laughed at Columbus" routine, insist that psychic weapons are as revolutionary, and potentially as important, as the atomic bomb. Physicists and other skeptics insist with equal vehemence that the projects are ridiculous. Despite the criticism, the experiments continue, at the taxpayers' expense. The CIA, the space agency, the National Institutes of Health, the National Security Agency and the armed services all have research programs on one area of parapsychology or another.

All of these projects are cloaked in the deepest secrecy. The obvious reason is national security. But from the few bizarre examples that have leaked out, another possibility for secrecy suggests itself: embarrassment. Even a true believer might be reluctant to admit

spending money on such a loony gimmick as an anti-missile time warp—a variant on Dr. Wonmug's time machine in the comic strip "Alley Oop"—which would intercept incoming Soviet missiles over the North Pole and cause them to detonate thousands of years ago.

Like so much of our military spending since World War II, the outlays on our Ouija-board warriors have been justified as an answer to a perceived threat from the Kremlin. But the history of this branch of research is almost a caricature of the pervasive East-West rivalry.

Research in the military potential of ESP had a low priority at the Pentagon during the 1950s, and if it existed at all in the Soviet Union, it was not of-

The Pentagon was alarmed. Was there a "psycho-gap" in the making?

cially sanctioned. Then, in 1960, the French press reported that telepathic experiments had been made aboard the U.S. submarine *Nutilus* while it was chambered in the ice under the North Pole.

The French press reports were probably fabricated out of whole cloth, but

parapsychology researchers in the Soviet Union—every bit as hungry for their share of the defense budget as are their counterparts in this country—seized on the stories as an opportunity to win approval for their own experiments.

That did it. A few years after the *Nautilus* reports, stories of questionable accuracy began surfacing here and there about amazing Soviet advances in voodoo warfare. One apocalyptic account suggested that the Russians were

"Psychotronic weapons already exist, and their lethal capability has already been demonstrated."

amassing an Army of "two million trained psychics" whose mission was to subjugate the world for the Kremlin.

The Pentagon was alarmed. Was there a "psychogap" in the making? Clearly, what was needed was money—and there were plenty of charlatans willing to help the generals ward off impending attack by the Soviet psychic army in return for a few thousand dollars, or a few hundred thousand.

Some of the psychics managed to penetrate the U.S. Treasury—if not the secret recesses of the Kremlin. For example, in the early 1970s Stanford Research Institute scientists Harold Putoff and Russell Tard claimed to have proven that psychics could project their minds and through "remote viewing" see inside any military installation in the world. The SRI psychics for whom these incredible claims were made were Pat Price, now deceased, Ingo Swann and Uri Geller, who also claims the ability to bend spoons by mental force. Swann and Geller have since been exposed by professional magicians as simply gifted illusionists—that is tricksters.

Nevertheless, SRI's "remote viewing" experiments with Price, Swann and Geller persuaded the intelligence community, and especially the Navy, that psychic research was worth a serious effort, and of course a serious expenditure of money.

In 1973, the CIA and the National Security Agency arranged a top secret demonstration appr̄oval for Releas

was called "Project Scanate," and its results so awed some government officials that one exclaimed, "There's no security left!"

Swann and Price were given geographic coordinates and asked to describe the site. Swann sketched a target island in the Indian Ocean. Price did even better: he gave a detailed description of a secret military facility in Virginia, and even purportedly read code-worded files ("Cueball," "14 ball" and "Rackup") locked inside a top secret installation that monitored Soviet space flights.

For his next act, Swann turned his psychic eye on the Soviet Union itself and described a supposedly secret installation in the Urals in amazing detail. He even told the astonished test sponsors that the secret base was staffed by "an unusually high proportion of women."

Security experts in the "Project Scanate" audience were not convinced. But enough top brass in both the CIA and the Navy were impressed to push for expanded psychic research.

Since the Scanate test, Putoff and Targ have publicized their findings widely, which has allowed independent investigators to run their own tests. These experiments have been generally negative, and none has brought the spectacular results claimed for the Scanate performance.

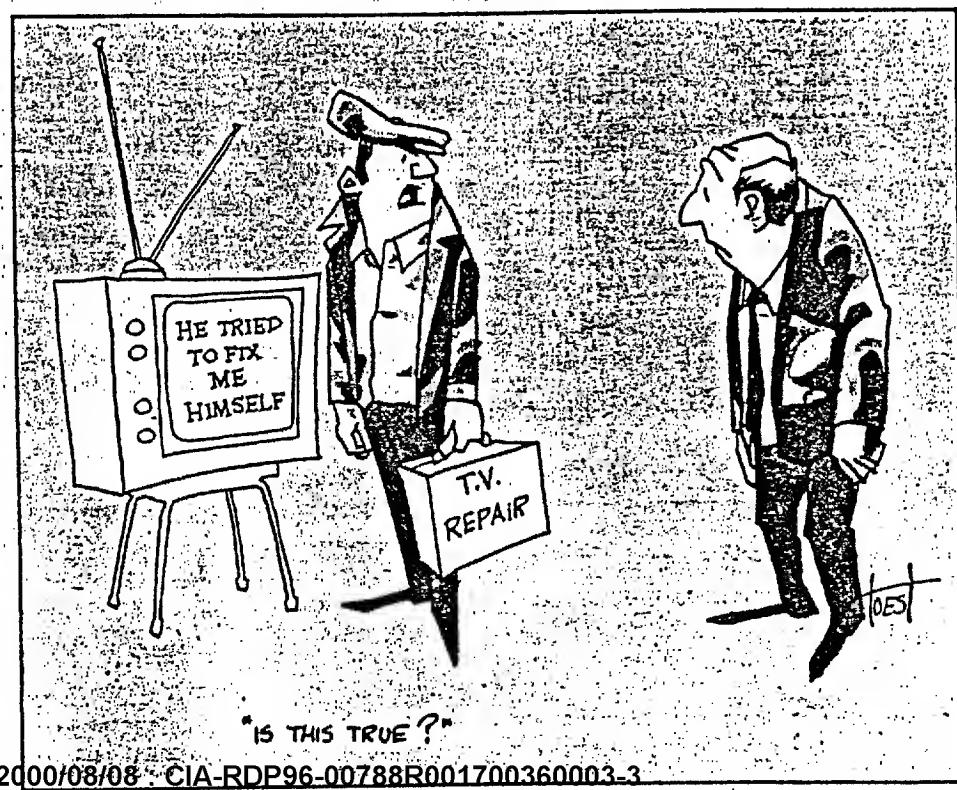
The Navy was unruffled by evidence of improper procedures in the Scanate

test, however. In the summer of 1977, Swann and five other Stanford Research Institute subjects were taken in a Navy research submarine 2,000 feet down to the floor of the Pacific. There they predicted correctly that the sub would find lost anchors and parts of sunken ships. The Navy did not disclose whether the research site was, perhaps, the scene of a World War II naval engagement.

This was the same year the Navy bought Charles Whitehouse's \$5,111 "spectral image-analyzer," the machine that could supposedly locate a Soviet sub by ingesting its photograph. Whitehouse has refused to disclose how his gadget performed in 20 days of trials, but the Navy bought it, and hired Whitehouse to train two officers and five enlisted men in its operation.

The Navy's obsession with psychic weapons was a modest bonanza for the Stanford Research Institute. In 1975, the Navy gave SRI a \$50,703 contract to determine if psychics could detect remote electromagnetic sources. A year later, it threw in another \$26,000 to find out if the mindreaders could exert any influence on magnetometers, which measure magnetic fields and are important in submarine detection.

By all odds the most bizarre research undertaken by our seagoing psychonauts, though, was their investigation of the so-called "Backster Effect." That's the phenomenon of plants supposedly reading human thoughts. You



"IS THIS TRUE?"

can see the devastating effect this could have: smuggle a psychic philodendron into the Soviet Presidium's council chambers, and the Kremlin's darkest secrets could be ours—presumably shuttled to the Pentagon by carrier aphids.

Cieve Backster is a polygraph operator who claimed to have discovered that plants attached to a lie detector will "faint" if someone thinks about plucking a leaf, and vegetables' growth will languish if they take a dislike to the gardener. Many amateur horticulturists have long suspected things like this, but Backster actually tried to prove it by "interrogating" a plant that had been present at a murder. The police were persuaded to march 20 suspects past the plant, but the leafy witness was unable to finger the killer.

Some of the Air Force's interest in parapsychology is based on concern for security of nuclear weapons. If a Uri Geller can bend a spoon by sheer will-power, might someone similarly gifted be able to move the quarter-ounce trigger of a bomb the one-eighth of an inch necessary to explode it? Or could a mindreader pick the brain of a missile officer and learn the code words that control the weapon's release? The James S. McDonnell Laboratory is conducting top secret studies on this.

The Pentagon is spending generously on parapsychology in a crash program to end Russia's psycho-superiority.

The Army has not been lagging in ESP research. In 1972, the Defense Advanced Research Projects Agency sent a team to evaluate Stanford Research Institute's claimed results with spoon-bender Geller. The team was headed by Dr. George Lawrence, a psychologist who is open-minded on the subject of parapsychology. With him were Ray Hyman, an accomplished magician and ESP debunker, and Dr. Robert Van de Castle, a University of Virginia sleep and dream expert and a past president of the American Parapsychological Association.

The team's report was totally negative. Hyman was moved to suggest that Geller be sent on a tour of the Soviet

After viewing Project Scanate, one government official exclaimed, "There's no security left!"

Union, in the hope that he would defect.

As a result of their evaluation, the Army grew cool toward some psychic weapons development—but not completely turned off by any means. In 1976, the Army awarded a \$145,000 contract to check into the "aura" seen around human beings by so-called Kirlian photography. The researchers found that the "aura" was an easily explained interaction of body moisture and the electric field. Army investigators even managed to get photos of the "auras" surrounding a wet sponge, a bowl of spaghetti and a used prophylactic.

When the always-available Stanford Research Institute proposed a \$3.5 million study of "remote viewing" in 1977, the defense research agency flew in a team of debunkers and SRI's proposal was quickly rejected.

But it is the Army's "psychic task force" that has reported the most alarming possibilities of psychic research. As Jack Anderson reported several months ago, the secret psychic task force, operating in a room in the Pentagon basement, has come up with some hair-curling predictions of Soviet mastery in the ESP field.

According to retired Lt. Col. Thomas E. Bearden, the Russians have already deployed third-generation psychotronic weapons. These include the "photonic barrier modulator," which can induce death or illness from thousands of miles away with the ease of a Haitian witch doctor; the "hyperspatial howitzer," which can transmit nuclear explosions instantaneously to any point in the world, and the "hieronymous machine," (perhaps named for the protosurrealist painter, Hieronymous Bosch) which Bearden contends sank the U.S. nuclear submarine Thresher in 1963.

Ludicrous as all this may seem, psychotronic weaponry has its staunch believers in government. In December 1980, *Military Review*, the straight-laced professional journal of the U.S. Army, published an article entitled "The New Mental Battlefield: Beam Me Up, Spock," by Lt. Col. John B. Alexander. Alexander's assertions are startling. Here are a few:

- "Psychotronic weapons already exist, and their lethal capability capacity has already been demonstrated."

- "The ability to mentally move objects has also been repeatedly demonstrated under scientifically controlled conditions."

- "Research done on the Transcendental Meditation Sidhis Program... has produced evidence that individuals can be taught to physically levitate."

- "The intelligence-gathering capability of remote viewing is obvious."

Note that he says "capability," not "potential."

An important point about Alexander's claims is that he's writing about Soviet research, not the Pentagon's. His assertions go beyond any experimental results reported in this country. And his article presumably constitutes an update of a Defense Intelligence Agency study in 1972, which predicted, with something less than certainty:

"Soviet efforts in the field of PSI research, sooner or later might enable them to do some of the following:

"A. Know the contents of top secret U.S. documents, the deployment of our troops and ships and the location and nature of our military installations."

"B. Mold the thoughts of key U.S. military and civilian leaders, at a distance."

C. Cause the instant death of any U.S. official, at a distance."

"D. Disable, at a distance, U.S. military equipment of all types, including space craft."

Whether the Soviets' Star Wars scientists have actually progressed to the deployment stage, as Alexander seems convinced they have, there's one federal agency that's taking no chances: the Secret Service has commissioned studies on ways to protect the President from the Kremlin's mind control. And senior agents from both the Secret Service and the CIA have been required to take courses in mind control offered at universities in the Washington area, to prevent them from falling under the spell of Soviet psychics. □

JACK ANDERSON

CIA Toys With Extrasensory Weapons

In James Bond circles, nothing is too farfetched to be dismissed. The Central Intelligence Agency, for example, has been toying for years with the idea of using extrasensory perception in its work — spurred by the suspicion that the Russians have somehow succeeded in opening an ESP gap.

I've already reported on the Pentagon's \$6-million-a-year research to develop ESP weapons that can brainwash or incapacitate enemy leaders by thought transfer, deliver nuclear bombs instantaneously thousands of miles away by psychic energy, or even create a protective "time warp" to make incoming Soviet missiles explode harmlessly in the past.

These wacky projects have support from the Defense Intelligence Agency, which reports the Russians have been doing intensive research in the field for nearly 50 years. The DIA even credits the omnipotent Kremlin scientists with successfully demonstrating ESP's deadly potential on insects, a possibility that should bring joy to farmers and backyard gardeners — and strike terror in the insecticide industry.

The CIA, though historically less alarmist about the Red Menace than the Pentagon, spooks are, has also been monitoring Soviet ESP research and pondering the possibility of less bizarre psychic weapons. A top-secret report on the subject by a CIA scien-

tific expert has been examined by my associate Dale Van Atta.

The analysts estimated that "the Soviet military and KGB have had a covert applied parapsychology program since the mid-1960s." This was the period when the CIA was experimenting with hallucinogenic drugs on unsuspecting Americans and with foot powder that would make Fidel Castro's beard fall out.

The CIA warns the Soviets may be "ahead of the U.S. in parapsychology." Evidence of Soviet progress is sketchy because the Kremlin's voodoo scientists, the CIA suspects, have gone undercover. Intelligence sources estimate that at least 200 Soviet experts in various disciplines are working on ESP weapons development.

The CIA report identified several areas of suspected Soviet study:

- "Electrostatics of telekinesis," or the ability to move objects by mental concentration.

- "Extremely low frequencies of electromagnetic radiation for information transmission." This may have been what the KGB was up to when it bombarded the U.S. Embassy in Moscow with microwave radiation for nearly 20 years.

- Application of theories involving links between the way the human brain and electronic computers operate.

- Remote monitors and stimulators to determine or influence another per-

son's physical condition by telepathy, like a Haitian witch doctor might try.

- High-frequency analysis of an electroencephalogram, a sort of wiretapping of someone's brain waves.

The area of Soviet ESP research that really has the CIA's mouth watering is the possibility of "remote viewing" by telepathy from thousands of miles away. Who'd need a mole in the Kremlin if a psychic sitting at a desk in Washington could zoom in mentally on a super-secret Soviet missile site or a Politburo meeting?

Under the Dome: House Minority Leader Robert Michel (R-Ill.) appears to be cracking under the strain of his job. He has taken to composing such literary gems as "Uncle Bob's Primer for Big Spenders." Excerpts: "See Big Spenders run in 1980. See Big Spenders lose in 1980. . . . See Big Spenders forgetting the lesson of 1980. See Big Spenders run in 1982. Lose, Big Spenders, lose." Another effort, inspired by the old song, "Is You Is or Is You Ain't My Baby?" goes like this: "Is the Democrats or ain't the Democrats backing the mandate the people gave Reagan?" Mercifully, Michel didn't try to sing it.

- Rep. Jack Kemp (R-N.Y.) is the man who introduced Budget Director David A. Stockman to then-candidate Ronald Reagan, and Kemp says he's glad he did. "Stockman is an intellectual giant who can get along with people," Kemp claims.

Approved For Release 2000/08/08 : CIA-RDP96-00788R001700360003-377

4-2-1 National Security Agency participants in a series of unusual experiments run by SRI to verify claims that certain people have psychic abilities. The results SRI reported were astonishing.

The SRI investigators, physicists Harold E. Puthoff (a former NSA research engineer) and Russell Targ, set out to demonstrate to their CIA sponsor that their subjects, a noted psychic named Ingo Swann and a middle-aged businessman named Pat Price, could describe distant locations merely by knowing which geographic coordinates to "look at." Some parapsychologists call this alleged ability "astral projection," or "out of body experience." Puthoff and Targ prefer the term "remote viewing."

To check such startling claims, a "rigorous test under control of the sponsor" was conducted, according to the experimenters' report, entitled "Project Scanate." The geographic coordinates of target sites chosen by the NSA monitor were encoded to ensure their security, then transmitted from his Washington-area location to a CIA scientist in Menlo Park, Calif., where SRI headquarters is located. The CIA man decoded the coordinates, passed them to Dr. Puthoff, who then presented them to the subjects. In one case, Swann described and sketched with reasonable accuracy a target island in the South Indian Ocean. In another instance, Pat Price gave an incredibly detailed description of a supposedly secret, underground military installation in Virginia. But there was more. According to the SRI report:

"On a later date Pat was asked to return [mentally] to the Virginia site with the goal of obtaining codeword information, if possible. In response, Pat supplied the following information:

Top of desk had papers labeled:

Flytrap

Minerva

File cabinet on north wall labeled:

Operation Pool — (2nd word unreadable)

Folders inside cabinet labeled:

Cueball

14 Ball

4 Ball

8 Ball

Rackup

Name of site vaguely seems like Hayfork or Haystack

Personnel:

Col. R. J. Hamilton

Maj. Gen. George R. Nash

Major John C. Calhoun??[sic]

"Hell, there's no security left," a government security officer exclaimed upon hearing of Price's alleged success at psychic spying. According to a military source who requests anonymity, the site Price described was a satellite interrogation station which eavesdrops on Soviet space vehicles, and the code words referred to those operations. A security investigation was launched to determine whether the sensitive information had been leaked to Price or others involved in the tests. "The security men wouldn't buy the idea of remote viewing," he says. Neither would CIA psychologists who have examined the evidence with considerable skepticism.

But Price had more surprises in store. He volunteered to scan "the other side of the globe for a [Soviet] Bloc

ENCLOSURE C

Psychic Spying?

The CIA, the Pentagon And the Russians Probe The Military Potential Of Parapsychology

By John L. Wilhelm

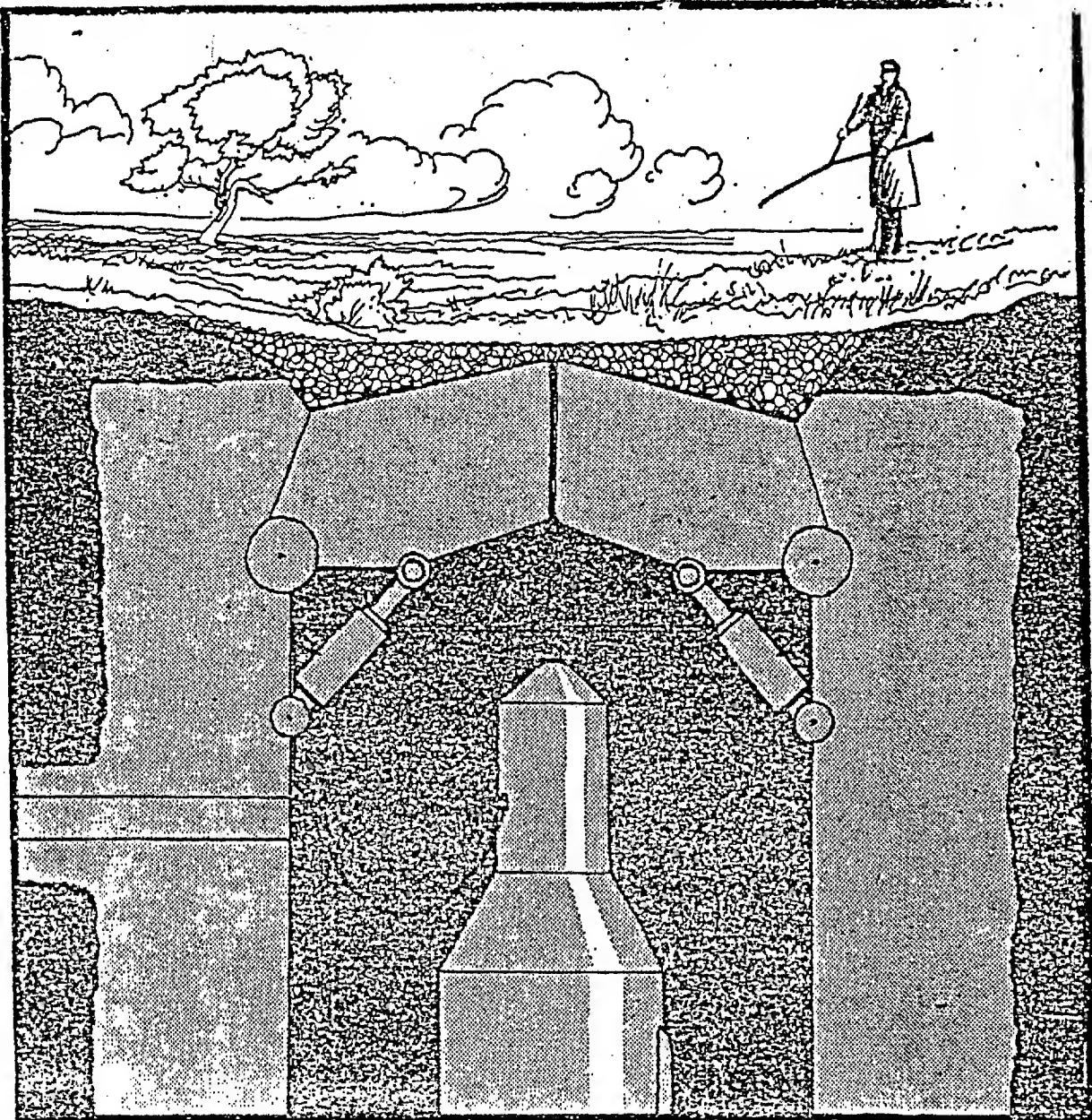
Wilhelm is a former national science correspondent for Time magazine. His book on psychic research, "The Search for Superman," was published last year.

equivalent, and found one in the Urals," continues the SRI report. In addition to giving geographic coordinates for this Soviet installation, Price described it in minute detail, including visions of helipads, rail tracks leading into a mountainside, radar antennae and even the observation of an "unusually high ratio of women to men, at least at night."

The CIA scientist monitoring the tests, a physiologist from the research and development side of the agency, believed he had a potential class A espionage agent who could roam psychically anywhere in the world, ferreting secrets undetected — in effect, the perfect spy.

A Murky Business

FOR THE PAST 25 years, various branches of the military and intelligence communities have actively investigated this highly controversial field of parapsychology. Their interest, which parallels recently revealed accounts of drug and mind control experiments, ranges



By David Suter for The Washington Post

from intelligence reports on foreign developments and theoretical background studies to funding of original experiments and even semi-operational tests of psychic espionage abroad.

The frequently grandiose claims made for parapsychology include reading or controlling people's thoughts (telepathy), gaining information about distant persons, places and things (clairvoyance), predicting the future (precognition), and influencing physical objects (psychokinesis) — all by unknown, extrasensory or psychic means. Such claims are by no means well established scientifically, and they have stimulated raucous debates between "believers" and "debunkers" within the agencies charged with evaluating whether parapsychology holds any promise (or danger) for mind warfare.

Wading through all the dubious claims, conflicting reports and deliberate disinformation is mushy business at best. Much of the research in this country is classified or

dreams, biofeedback, human factors, biocybernetics and non-ionizing radiation. For example, one \$30,000 CIA contract study published last year is ingeniously camouflaged by the title, "Novel Biophysical Information Transfer Mechanisms (NBIT)." Funding officers prefer to shelter these "high giggle factor" programs from Congress (and sometimes their own bosses) to avoid public embarrassment as well as to conceal what some project managers fervently believe may be breakthrough military/intelligence capabilities equal to the discovery of atomic energy.

There is particular concern about Soviet psychic capabilities, including allegations that the Russians are able telepathically to influence the behavior of others, alter their emotions or health, knock them out or even kill by directing a kind of psychic double-whammy at them. A recent report by the Defense Intelligence Agency states:

"Other Soviet tests included sending to the percipient the anxiety associated with suffocation and the sensation of a dizzying blow to the head. . . . Some Western followers of psychic phenomena research are concerned, for example, with the detrimental effects of subliminal perception techniques being targeted against U.S. or allied personnel in nuclear missile silos. The subliminal message could be 'carried' by television signals or by telepathic means.

"The potential applications of focusing mental influences on an enemy through hypnotic telepathy have surely occurred to the Soviets. . . . Control and manipulation of the human consciousness must be considered a primary goal."

A few analysts even fear that the President and other leaders could become the telepathic targets of Soviet mind control efforts. They argue that defensive measures need to be researched to prevent such apparent science-fiction possibilities. One speculation voiced in support of this thesis is that the decade-old microwave signals beamed against the U.S. embassy in Moscow might have been an operational experiment in behavior modification using "psychotronic" methods — that is, involving psychic powers amplified by special devices. Wild as this sounds, the CIA's "NBIT" study lends some credence to the hypothesis: "The Russians may now be implementing the next logical step [to experiments proposed five years earlier], namely to reinforce, enhance, or aid NBIT in certain trained or gifted individuals after having discovered the basic communication carriers." And the DIA reports:

"Soviet or Czech perfection of psychotronic weapons would pose a severe threat to enemy military, embassy or security functions. The emitted energy would be silent and difficult to detect electronically (although the Soviets claim to have developed effective biological energy sensors) and the only power source required would be the human operator."

Most experts, publicly discount the idea, however, countering with the argument that the Moscow signals involve jamming devices or scanners that "see" inside the embassy.

The Soviets have a special laboratory dedicated to parapsychology, according to some intelligence analysts. The CIA report estimates that the laboratory may have a technical staff as large as 300 physicists, doctors, biochemists and electrical engineers, all studying the theory and applications of psychic functioning. A Soviet physicist now living in Paris, August Shtern, recently claimed that he had worked for several years in a secret laboratory in Siberia trying to find a physical basis for psychic energies. Shtern also said that, before leaving Russia two years ago, he had heard that an even more secret laboratory under direction of the KGB now is pursuing similar research in Moscow.

In June, Los Angeles Times correspondent Robert Toth was detained in Moscow by the KGB, allegedly for receiving "state secrets" about parapsychology research. The paper given to Toth by a scientist said to be laboratory chief at the Moscow Institute of Medical-Biological

Preparations, ~~here when lasers were just getting started.~~ Investigators at the Navy's Surface Weapons Center and NASA's Goddard Space Flight Center also have run "informal" tests on Geller, with dubious results.

The Geller Tests

THE GROWING governmental interest in psychic possibilities had been accelerated in 1972 when Dr. Andrija Puharich, a longtime researcher in the field, brought Geller to be studied at Stanford Research Institute. This \$100-million-a-year think tank south of San Francisco (just renamed SRI International) conducts a wide variety of studies for both government and business. SRI has evaluated the potential of LSD and other drugs for the CIA, forecast world trade in the year 2000 for multinational companies, even analyzed an 18½ minute tape gap for just one customer, Richard Nixon. SRI scientists are no strangers when it comes to dealing with hush-hush projects.

Neither is Puharich. His connections with the military/intelligence communities go back to the early 1950s when he worked in the Army's Chemical and Biological Warfare Center at Ft. Detrick, Md.; site of the CIA's now famous shellfish toxin repository. He presented a paper entitled "On the Possible Usefulness of Extrasensory Perception in Psychological Warfare" to a Pentagon conference in 1952 and later lectured the Army, Air Force and Navy on other possibilities for mind warfare. Expert in hypnotism as well as microelectronics, Puharich also invented a miniature tooth radio, reportedly for the CIA.

So it was Puharich who netted Geller for study, studies paid for by a few small, private foundations formed expressly to fund such research, including one headed by former astronaut Edgar Mitchell. In addition to telepathy and clairvoyance, SRI researchers claimed that Geller could erase magnetic tapes, levitate tiny weights, even materialize and dematerialize small objects. The Pentagon's DARPA sent a team of consultants to SRI to see if such bizarre claims rated their funding. But the DARPA consultants concluded that SRI's work with Geller was conducted with "incredible sloppiness." Geller now is largely discounted as merely an extremely facile conjurer.

While Geller and others were undergoing tests at SRI, CIA scientists were canvassing the country for additional evaluations, prowling parapsychology meetings and tapping experts in an effort to fathom the conflicting, and often quite emotional, reports from both believers and skeptics alike.

"I had two men from the CIA come down and visit me," recalls Dr. Robert Van de Castle, at the time a University of Virginia psychologist and also a member of the DARPA team that investigated Geller. "One thing they wanted to know was if Geller could jam computers. But they were particularly interested in out-of-body stuff. They were concerned that the Russians had developed it to such an extent that they were using it for intelligence monitoring. They seemed to think that psychic intelligence gathering was not beyond the realm of



"Hawker here's
convinced the dam'
Commies have invented a
secret brain-washing ray
that's beamed in on
Jimmy Carter."

Lanedon in Punch

the Electronics Systems Command, explaining the Navy's interest. "I've thought for 20 years that ESP is the way to fight submarines." In fact, one of Ingo Swann's remote viewing demonstrations at SRI was to pinpoint the location of Soviet submarines around the world.

Within the past few weeks, Swann and five other SRI subjects descended some 2,000 feet below the Pacific inside a tiny submersible to try to their remote viewing on the sea floor. According to a scientist from NASA's Jet Propulsion Laboratory in Pasadena, who also made the dive, the psychics correctly predicted — prior to diving — where to find various man-made objects such as anchors and parts of sunken ships.

Mind Trips to Jupiter?

ABOUT THE SAME time that the second Navy contract was given to SRI, the scientific assistant to the secretary of the Navy, Dr. Sam Koslov, received a routine briefing on various research projects, including SRI's. As the briefer flashed his chart onto the screen and began to speak, Koslov stormily interrupted: "What the hell is that about?"

Among the glowing words on the projected chart, the section describing SRI's work was labeled: "ELF AND MIND CONTROL."

"ELF" stands for "extremely low frequency" electromagnetic waves, from the very slow brain frequencies up to about 100 cycles per second. The Navy is interested in ELF because its Project Seafarer (formerly Pro-

reversed himself completely: "From what I have seen it was a valid test as far as the investigators are concerned." The excuses range from: (1) the NSA or CIA man "couldn't read a map" and therefore the coordinates got confused; and/or (2) the psychic subjects zeroed in on the nearby Sugar Grove space communications center (which does have a few similarities to the described target, but is in West Virginia, has public tours through it and so is not secret, and is manned by Navy, not Army, personnel); and/or (3) the subjects read the mind of the NSA officer rather than the coordinates. Says Foote: "There may have been a slight exaggeration, but it was a matter of degree rather than a deliberate falsehood."

The CIA, NSA and SRI have not responded to requests to clarify the discrepancies. Puthoff and Targ continue to stand by the "Project Scanate" report, and maintain that their investigations "are among the most severely monitored in the history of science."

The Scientology Link

ONE ITEM that continues to trouble those in government who follow the SRI work is the unusually large number of Scientologists involved with the psychic tests there.

SRI's chief researcher, Dr. Harold Puthoff, is a high-ranking Scientologist and has written defenses of his organization's methods and beliefs. Scientology's beliefs include the development of personal psychic powers.

Toth was detained in Moscow by the KGB, allegedly for receiving "state secrets" about parapsychology research. The paper given to Toth by a scientist said to be laboratory chief at the Moscow Institute of Medical-Biological Preparations described a theory of psychic functioning called "mitogenetic radiation" which has been discussed publicly for years and largely discounted by others in the field. One theory is that the Russians hope to mislead the United States into believing that they are far ahead in parapsychology research so that we will either (1) waste scientific resources trying to find out what they are up to, or (2) do productive research which they then can tap into because of our more open system of scientific reporting. It is indeed a murky business.

From ESP to Voodoo

BUT, FOR MANY YEARS, small groups within the U.S. government have taken seriously the speculations about using psychic powers for mind warfare:

- Dr. J. B. Rhine, the dean of American parapsychology, conducted extrasensory perception (ESP) tests for the Army as far back as 1952. In the early 1960s, a team of Air Force scientists tested junior college coeds for ESP in an effort to develop a strict experimental method that others might follow.

- During the Vietnam War, the Marine Corps tried dowsing or "water-witching" as a technique to uncover hidden mines and tunnels in the mountainous I Corps area west of Hue.

- The National Institutes of Health has supported a few studies in parapsychology. Funding for one of these programs, experiments in dream telepathy at Brooklyn's Maimonides Hospital, now has been taken over by the McDonnell Aerospace Foundation, founded by James McDonnell of McDonnell Douglas Corp., one of the country's largest defense contractors.

- Three years ago, NASA paid \$80,000 to see if machines could teach ESP (they could not) and for some pilot studies that measured brain waves during alleged telepathic/clairvoyant communications.

- Last year, the Defense Department's Advanced Research Projects Agency (DARPA) sponsored a \$145,000 contract to determine whether the Soviet-discovered Kirlian photography really depicted the glowing "aura" of a person's "etheric body." The study found that Kirlian pictures are related to the moisture content in a person's skin, a conclusion which is scientifically interesting but certainly not grist for occult lovers.

- One West Coast Veterans Administration hospital harbors secret biofeedback/telepathy experiments; another VA hospital in the Midwest conducts "out of body" investigations. Whether these are officially sanctioned projects or just bootstrap investigations is undetermined, since the investigators refuse to discuss their research publicly.

CIA psychologists are swamped with proposals for psychic studies, including one this spring which offered to study a Trinidadian voodoo specialist who reportedly flattens automobile tires — and presumably people — merely by sticking pins in their photographs.

Ron Robertson, a security officer at Lawrence Livermore Laboratory in California, one of the country's primary nuclear weapons arsenals, has acknowledged that "some of the [government's] interest in psi [psychic studies] ties into classified intelligence areas, for example, the security of nuclear weapons." Robertson, who has followed psychic developments on an official basis, seriously fears that a talented psychic might trigger or disable a warhead merely by psychokinetic force of mind. "All it takes is the ability to move one-eighth of an ounce a quarter of an inch at a distance of one foot," he has warned.

Physicists at Livermore, the University of California and elsewhere believe that psychic functioning — including Robertson's fears of nuclear sabotage by psychokinesis — can be explained by electroinagnetic, quantum mechanics or relativity theories. The scientists at Livermore have conducted psychokinetic tests with the young Israeli stage performer, Uri Geller, all on an "informal" basis, they insist. According to Robertson, the excitement over psi at Livermore seems to be past.

.... they copied it to such an extent that they were using it for intelligence monitoring. They seemed to think that psychic intelligence gathering was not beyond the realm of possibility," continues Van de Castle, adding quickly: "They gave more serious weight to that possibility than I would as a parapsychologist."

"Remote Viewing"

PERHAPS the CIA investigators were just better informed. About the same time that Van de Castle was being interviewed, the CIA was closely monitoring SRI's "remote viewing" experiments with Ingo Swann and Pat Price. Specialists from the operational side of the agency were brought in to attempt to confirm the "remote viewing" effect, and did so, according to two sources, by testing both Swann and Price, and others, apart from SRI. For example, Swann and Price were given foreign targets to focus on, including some in Russia and China. Though there were frequent misses, enough accurate information was gleaned to please the CIA, according to the reports. How did the monitors know that the information was accurate? Sometimes, the answers were not known until after the remote viewing descriptions had been given and "ground truth" checks were made by agents operating abroad.

Swann denies ever having worked for the CIA, and may have been unaware of the identity of the tests' sponsor. "If anybody gets the idea that there's psychic warfare going on, I could get killed in the streets," Swann has said.

The project did suffer one notable failure. When an Air Force officer was kidnapped by Turkish terrorists a few years back, Price and some others attempted to "see" where he was being held captive. Acting on their psychic tipsters' information, intelligence operatives checked the site, but to no avail. But that did not deter the psychic spy enthusiasts.

In a self-proclaimed "independent and somewhat critical study of extrasensory perception," intelligence consultant Joseph A. Ball of Santa Barbara, Calif., concluded in 1975 that the work at SRI "produced manifestations of extrasensory perception sufficiently sharp and clear-cut to justify serious consideration of possible applications," that is, psychic spying.

Under a section headed "Practical Applications," Ball writes: "No matter how gifted the paragnost [psychic], existing ignorance of the basis of paranormal phenomena together with the capricious and unreliable nature of the channel dictate that information derived from this source can never stand alone and must be used with caution. Extrasensory information should at best [his emphasis] supplement normal information or guide its collection, but should never serve in place of it." But his point is that espionage by ESP is a reasonable expectation.

SRI's highly advertised "Project Scanate" results served the crucial purpose of garnering further government funding. Legitimized by the participation of CIA and NSA personnel in their tests, SRI's Puthoff and Targ briefed "every government agency you can name" looking for further support. One that bit was the Special Warfare Branch of the Naval Electronics Systems Command. The decision to fund was taken largely on the basis of an impressive briefing on "Project Scanate" by the SRI experimenters which their CIA monitor attended.

In October, 1975, the Navy let a \$50,703 contract to SRI for psychic sensing of remote electromagnetic sources, a continuation of earlier work supported by NASA in which subjects allegedly used their powers to detect remotely flashing lights. Most of the experiments were carried out under subcontract to Langley Porter Neuropsychiatric Institute in San Francisco — and were a bust. Early in 1976, Puthoff and Targ received \$25,000 in supplemental money from the Navy to see if magnetometers could be affected by human beings. The SRI researchers already had reported that some of their subjects could indeed affect the workings of a shielded magnetometer.

"We have a deep and abiding interest in magnetometers," says Dawson Jr., technical director of the

Psychic researchers are interested in ELF because many theorists believe that radiation at the ELF frequencies is responsible for psychic communications.

But the "Mind Control" lab really upset Koslov. He forced the SRI investigations for the Navy stopped, and cancelled another \$35,000 in Navy funds slated for remote viewing work. "We [Koslov's emphasis] don't fund programs in this area," the outspoken scientist lies. "If you ask me, 'Do you think it's a pile of crap?' I can quote you." In March of this year, Koslov again insisted that the Navy is "simply out of this business. I don't believe it's the function of the military to support parapsychology research."

Contrary to Koslov's assertion, the Navy still is supporting psychic research. An interdisciplinary team at the Navy's Electronics Laboratory Center in San Diego has been continuing some of the work begun at SRI. Led by an expert in bionics, the \$100,000, two-year project may be cut because of tight research money. Which is unfortunate, since the experiments seem far better designed than earlier ones elsewhere.

This spring, SRI's Puthoff and Targ again made the rounds of Washington drumming up sponsorship. One proposal that they hoped to sell to NASA was a \$100,000 program precognitively to predict eclipses of the four major Jovian moons by having a subject fly his consciousness to the giant planet to "record the actual time of the eclipse as observed on Jupiter [SRI's emphasis].", though SRI's proposal claimed that "pilot studies have been encouraging," NASA declined.

The SRI investigators also sent feelers to DARPA in hopes of winning long-term support for their work. Skeptics at the agency quickly flew in an outside team of debunkers to brief engineers in the strategic and tactical offices who were considering funding SRI's psychic work. Just three days after the debunkers presented their case, DARPA spokesperson Jane Smith flatly denied that the agency had any interest in psychic research or in Puthoff and Targ. Queried repeatedly, she stood on the statement from DARPA Director George H. Leilmeier: "DARPA has not received and is not considering a proposal, formal or informal, on psychic research." According to one of the paid consultants who briefed DARPA, SRI had proposed a \$3.5 million program on remote viewing.

Scanate" or "Bullpasture?"

ON THE SURFACE, all this government interest in parapsychology strongly supports the "believers" in their heated debate with the skeptics over the reality of psychic functioning. Price's apparent hit on the alleged secret military installation in their demonstration test for the CIA is particularly impressive — until one asks other government funders touting the test, "Did you ever check it out?" The answer is "no."

So on Sunday, March 13, with compass, topographic maps and aerial photographs in hand, I drove to an area some 135 miles west southwest of Washington, the site identified by the coordinates given in the SRI report. A NASA official and his two sons accompanied me. From all the secrecy surrounding this test we half-expected to discover the base camp of an extraterrestrial scouting party or, at the very least, the command center for World War III.

No such luck. Just a sparse hillside, a few flocks of sheep, and lots of droppings. No "underground storage areas," no "computers, communication equipment" or "Army Signal Corps" personnel, as reported by Price. The only "codeword" was the name of the place, Bullpasture Mountain. Under the circumstances, it seems that SRI's "Project Scanate" would be named more appropriately, "Project Bullpasture."

When told of the results of our hike, James Foote, the Navy project manager for the SRI tests, was astonished: "I am just chagrined that we didn't catch this. It wasn't just SRI that told us this [the test results] but the [CIA and NSA] sponsors, otherwise I wouldn't have taken it so much for granted . . . There's definitely some fallacy in this Scanate report."

Several days later, Foote abruptly changed his tune. After checking with his contacts at the CIA, he

VII Operating Thetan, the highest rung of government's complex ladder of achievements; Pat Price, who died two years ago, also was a high-level "Operating Thetan." The laboratory assistant to Puthoff and Targ during many of the Geller experiments was a Scientologist married to a "minister" of Scientology.

Some of the initial funding for SRI's experiments came from a ranking Scientologist who had established his Science Unlimited Research Foundation "at Hal Puthoff's suggestion," according to the foundation's executive director at the time. Ingo Swann helped to establish Scientology's "Celebrity Center" in Los Angeles, the headquarters recently raided by the FBI. At the time of his original testing, Swann revealed that there are "fourteen Clears [a medium-high level of Scientology achievement], more than I would suspect," working at SRI.

The involvement of Scientologists in the tests at SRI partially accounts for at least two government agencies pulling back from funding further work there. Sociologist Marcello Truzzi, one of the consultants called in last March to brief DARPA on Puthoff's and Targ's experiments, says letting Scientologists conduct ESP research is "like giving money to a cardinal of the Church to do experimentation into the veracity of transubstantiation."

On the other hand, some within government argue that it makes sense to let Scientologists investigate the psychic claims subscribed to by members of the organization. But at best, this is questionable science.

Bad Drives Out Good

ONE EVEN MORE confusing possibility is that the SRI experimenters may to some extent be unwitting participants in a deliberate put-on, a consideration they themselves have raised. Col. Austin Kibler, director of DARPA's human resources division in 1973, confided to one of his consulting psychologists that "it could be that we are pretending to support this [psychic] work to throw off the Russians." One ranking CIA scientist privately voiced the same possibility just a few months back:

But there is a core of dedicated believers inside several government agencies who are intensively reviewing parapsychology research, weeding through the mass of conflicting opinion, biased reports and inconclusive experiments in an attempt to determine what next steps should be taken, if any.

The authors of the CIA's two-volume study urge "that it is worthwhile for the United States government to initiate and support systematic research in this [psychic] area . . . Thus, it is recommended that a system integration and research planning analysis team be formed to evaluate research work completed, update an overall NBIT research system model, identify and outline new areas of research and organize interdisciplinary meetings between different research groups so that they are continuously updated and educated about the state of the art."

Those are strong recommendations for such flimsy evidence, at least such flimsy public evidence. Regrettably, most scientists operating within the mainstream refuse to involve themselves in the contorted debates over psychic phenomena. And, if they do stir themselves to opinion, it is generally formed on the basis of emotion, not experiment. They fear loss of "legitimate" research grants and stigmatization for showing interest in such a taboo subject. Thus, bad science drives out the good.

If there is reason to believe that psychic functioning performs according to the "mind war" scenarios described in the few classified studies that have leaked out, public debate can help shape safeguards to insure benign application. If there is the slightest shred of evidence that psychotronic weaponry is at all possible, it should be considered biological warfare and banned in accordance with existing agreements.

Whether psychic phenomena are nothing but hoax and laboratory artifact or the gateway to new dimensions of human experience are questions that should be pursued by the very best laboratories, basing their publicly reported conclusions on rigorous experiment, unalloyed by rhetoric.

UNCLASSIFIED

'Mind Weapons' Seen in Future Wars

By RANDALL SHOEMAKER
Times Staff Writer

WASHINGTON — Soldiers in the not-too-distant future may find themselves on the sending end or the receiving end of "psychotronic" weapons.

That's the suggestion of Lt. Col. John B. Alexander in an article published in a recent issue of *Military Review*, the monthly magazine of the Army's Command and General Staff College.

In "The New Mental Battlefield," Alexander described psychotronics as the interaction of mind and matter.

"There are weapons systems," he said, "that operate on the power of the mind and whose lethal capacity has already been demonstrated."

The Soviet Union and its allies are generally believed to be well in the lead in parapsychological research, and the amount of paranormal phenomena they have verified is voluminous, Alexander said. He cited these examples:

- The ability to heal or cause disease can be transmitted over distance, but while this has been demonstrated on lower organisms, flies and frogs, "the present capacity for human death is still debated."

- Energy emanations from the body, reflecting changes in emotional condition, have been widely demonstrated through radiation field photography known as the Kirlian effect.

- The ability to move objects mentally

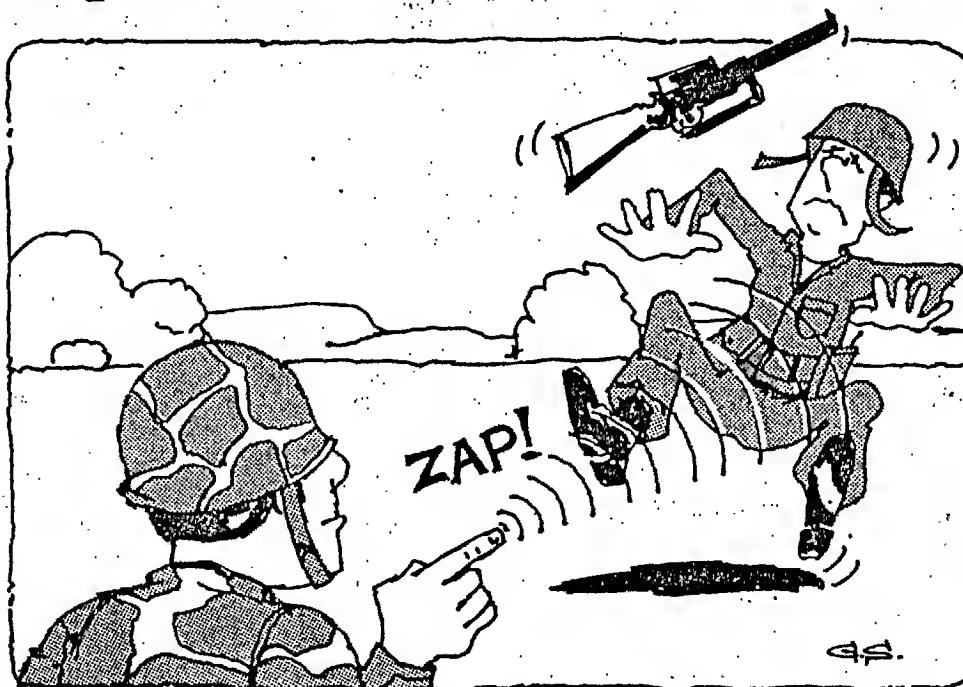


Illustration by Garnett Sullivan

has been repeatedly demonstrated under scientifically controlled conditions.

The extent of such research in the U.S. is not well known nor is it centrally organized, the officer said. Because the phenomena are frequently beyond explanation in known scientific terms, they often are discounted as nonexistent, he said.

Researchers at Stanford Research Institute have done the best known

experimentation on "remote viewing," the ability to collect data from afar, the officer reported. He also discussed so-called out-of-body experiences, bending of metal by nonphysical means, acupuncture, biofeedback and meditation research.

Two unclassified Defense Intelligence Agency reports dated in 1972 and 1975 were cited as sources of information on certain psychotronic weapons applications investigated by the Soviets.

"Certainly, with development, these weapons would be able to induce illness or death at little or no risk to the operator," Alexander said. "Range may be a present problem, but this will probably be overcome if it has not been already."

Soviet researchers have applied electromagnetic radiation against the U.S. Embassy in Moscow, he pointed out. Also, he cited researchers suggestions that extremely-low-frequency emissions "can be used to induce depression or irritability in a target population."

The use of telepathic hypnosis holds "great potential," Alexander said, and other mind-to-mind thought induction techniques are also being considered.

Although the officer did not specify the extent or cost of U.S. military interest in parapsychological research, other reports have claimed that investment in psychic warfare by the Pentagon has amounted to about \$6 million.

Many people in the scientific community remain skeptical of all claims for even partial success in psychic experimentation. Among such doubters, some have suggested that reports emanating from Soviet sources about psychotronic accomplishments are most likely a "disinformation" effort aimed at encouraging the U.S. to waste money on research. And, some say the U.S. spending may be a counter-disinformation ploy designed to make the Soviets nervous.

Alexander and official Army spokesmen declined to comment on the article or any further questions about psychic warfare research.